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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/997,732	11/29/2001	James A. Proctor JR.	TAN-2-1403.05.US	4009

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EXAMINER	
MATTIS, JASON E	
ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/997,732	PROCTOR, JAMES A.	
	Examiner	Art Unit	
	JASON E. MATTIS	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *1/24/08*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *37,38,42-44,48,68 and 69* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *37,38,42-44,48,68 and 69* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4 papers*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to the Amendment filed 1/24/08. Claims 37, 38, 42-44, 48, 68, and 69 are currently pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 37, 42, 43, and 48 rejected are under 35 U.S.C. 103(a) as being unpatentable over Noneman et al. (U.S. Pat. 5708656) in view of Jalali et al. (U.S. Pat. 5828662).

With respect to claim 37, Noneman et al. discloses a CDMA subscriber unit **(See column 3 lines 26-56 and Figures 1 and 2 of Noneman et al. for reference to a CDMA mobile station, which is a subscriber unit)**. Noneman et al. also discloses a wireless transceiver configured to transmit and receive digital signals with a base station over a CDMA channel having a plurality of subchannels **(See column 3 lines 26-56 and Figures 1 and 2 of Noneman et al. for reference to the mobile station having transmitter and receiver, which together comprise a transceiver, transmitting and receiving of digital CDMA channel signals to and from a base station)**. Noneman

et al. further discloses a bandwidth manager coupled to the wireless transceiver and configured to receive a time slot assignment from the base station over the CDMA channel **(See column 3 lines 46-56 of Noneman et al. for reference to the mobile station operating according to IS-95A, which is a CDMA communication standard that uses time slot assignments sent from a base station to a mobile unit, meaning the mobile unit must have a bandwidth manager to receive slot assignments)**. Noneman et al. also discloses the wireless transceiver configured to transmit an idle mode signal over the CDMA channel to the base station when the transceiver is powered on but not actively transmitting data to maintain timing alignment **(See the abstract, column 5 lines 47-67, and Figure 4 of Noneman et al. for reference to the mobile station operating in an idle mode when there is no packet data to be transmitted wherein idle packets are transmitted at an idle rate so that the mobile station can maintaining timing synchronization)**. Noneman et al. does not specifically disclose the idle mode signal being based on the time slot assignment and alternating between sending bits and not sending bits it time slots.

With respect to claim 43, Noneman et al. discloses a CDMA subscriber unit **(See column 3 lines 26-56 and Figures 1 and 2 of Noneman et al. for reference to a CDMA mobile unit, which is a subscriber unit)**. Noneman et al. also discloses a wireless transceiver configured to transmit and receive digital signals including an idle mode signal with a base station over a CDMA channel having a plurality of subchannels **(See the abstract and column 3 lines 26-56 and Figures 1 and 2 of Noneman et al. for reference to the mobile station having transmitter and receiver, which**

together comprise a transceiver, transmitting and receiving of digital CDMA channel signals including idle mode signals to and from a base station). Noneman et al. further discloses a bandwidth manager coupled to the wireless transceiver and configured to allocate subchannels on an as needed basis when the wireless transceiver is actively sending data and receive a time slot assignment from the base station **(See column 3 lines 46-56 of Noneman et al. for reference to the mobile station operating according to IS-95A, which is a CDMA communication standard that uses time slot assignments on an as needed basis sent from the base station to a mobile unit, meaning the mobile unit must have a bandwidth manager to allocate subchannels when the mobile unit is actively sending data and receive the time slot assignments and synchronization signals)**. Noneman et al. also discloses the wireless transceiver configured to transmit the idle mode signal when the transceiver is powered on but not actively transmitting data to maintain timing alignment **(See the abstract, column 5 lines 47-67, and Figure 4 of Noneman et al. for reference to the mobile station operating in an idle mode when there is no packet data to be transmitted wherein idle packets, which are synchronization signals, are transmitted at an idle rate so that the mobile station can maintaining timing synchronization)**. Noneman et al. does not specifically disclose the idle mode signal being based on the time slot assignment and alternating between sending bits and not sending bits it time slots.

With respect to claims 42 and 48, Noneman et al. does not specifically disclose receiving an updated time slot assignment over the CDMA channel for the transmission of a subsequent idle mode signal.

With respect to claims 37, 42, 43, and 48, Jalali et al., in the field of communications discloses assigning time slots for the transmission of an idle mode signal that alternates between sending bits and not sending bits it time slots **(See the abstract, column 1 lines 15-28, column 4 line 60 to column 5 line 10, column 6 lines 14-65, and Figure 4 of Jalali et al. for reference to assigning synchronization channel time slots, which are idle mode channels that are used to transmit signals to maintain synchronization even during periods when a mobile terminal has no data to transmit, and for reference to transmitting a synchronization signal by alternating between transmitting on an assigned time slot and not transmitting during other time slots)**. Assigning time slots for the transmission of an idle mode signal that alternates between sending bits and not sending bits it time slots has the advantage of allowing synchronization data to be sent on a separate channel from data such that the allocation of data channels is performed more efficiently by only assigning data channels to subscriber units that currently have data to transmit while maintaining a synchronization channel for all subscriber units.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Jalali et al., to combine using assigned synchronization channel time slots, as disclosed by Jalali et al., with the system and

method of Noneman et al., with the motivation being to more efficiently use allocate bandwidth while still maintaining synchronization for all subscriber units.

4. Claims 38, 44, 54, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noneman et al. in view of Jalali et al. and in further view of Fenton et al. (U.S. Pat. 5101416).

With respect to claims 38 and 44, the combination of Noneman et al. and Jalali et al. does not disclose maintaining a code phase lock with the wireless transceiver based on the idle mode signal.

With respect to claims 38 and 44, Fenton et al. in the field of communications discloses selecting a spreading code and transmitting a signal including to spreading code at a rate such that a code phase lock is maintained **(See the abstract and column 12 lines 6-12 of Fenton et al. for reference to using a signal containing a selected spreading code to maintain a code phase lock)**. Selecting a spreading code and transmitting a signal including to spreading code at a rate such that a code phase lock is maintained has the advantage of allowing a mobile unit to remain code synchronized to a base station.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Fenton et al., to combine selecting a spreading code and transmitting a signal including to spreading code at a rate such that a code phase lock is maintained, as suggested by Fenton et al., with the system and

method of Noneman et al. and Jalali et al., with the motivation being to allow a mobile unit to remain code synchronized to a base station.

5. Claims 68 and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noneman et al. in view of Jalali et al. and in further view of Ling et al. (U.S. Pat. 5619524).

With respect to claims 68 and 69, the combination of Noneman et al. and Jalali et al. does not disclose that each time slot is 1.25 ms.

With respect to claims 68 and 69, Ling et al., in the field of communications, discloses a CDMA communication system using 1.25 ms time slots **(See column 9 lines 5-10 of Ling et al. for reference to time slots being 1.25 ms)**. Specifically using 1.25 ms time slots has the advantage of allowing time slot duration to be optimally selected based on the operating environment of the communication system.

It would have been obvious for one of ordinary skill in the art at the time of the invention, when presented with the work of Ling et al., to combine specifically using 1.25 ms time slots, as suggested by Ling et al., with the system and method of Noneman et al. and Jalali et al., with the motivation being to allow time slot duration to be optimally selected based on the operating environment of the communication system.

Response to Arguments

6. Applicant's arguments with respect to claims 37, 38, 42-44, 48, 68, and 69 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON E. MATTIS whose telephone number is (571)272-3154. The examiner can normally be reached on M-F 8AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on (571)272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JEM

/FIRMIN BACKER/
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